Genesis Solar Energy Project

Revisions to Biological Resources Conditions of Certification

Staff, applicant and intervenors discussed a number of biological resource issues at workshops held on July 1 and 7, 2010 that resulted in revisions to proposed conditions of certification in the Revised Staff Assessment and/or the Supplemental Revised Staff Assessment. Most of the revised language provided below is as agreed upon by all parties at the workshops, but some additional revisions were made subsequent to the workshops, including changes to **BIO-28** (Golden Eagle Inventory and Monitoring) that were made after additional consultation with USFWS regarding compliance with the Eagle Act. Consultation with USFWS also resulted in minor changes to **BIO-8**, #9 (Avoidance and Minimization, Noise Impacts). **BIO-19** (Special-Status Plant Mitigation) has been extensively reorganized and revised since the RSA was published, and additional language has been added since the workshop. Table 1 summarizes the proposed changes.

Table 1. Summary of Changes to Conditions of Certification

Condition of Certification	Changes from Revised Staff Assessment/ Supplemental Staff Assessment
BIO-1 Designated Biologist Selection and Qualifications	none
BIO-2 Designated Biologist Duties	none
BIO-3 Biological Monitor Selection and Qualifications	none
BIO-4 Biological Monitor Duties	none
BIO-5 Designated Biologist and Biological Monitor Authority	none
BIO-6 Worker Environmental Awareness Program	none
BIO-7 Biological Resources Mitigation Implementation & Monitoring Plan	none
BIO-8 Impact Avoidance and Minimization Measures	#3 – Accepted applicant's suggested change to allow a 45 mph speed limit on paved roads rather than 25 mph. #9 – Added "fiber optic lines" to the list of project features that needed to include avian protection

Condition of Certification	Changes from Revised Staff Assessment/ Supplemental Staff Assessment
	guidelines. #9 – Staff added language to reflect discussions at the July 7th workshop that allowed the applicant to conduct noisy construction during the February 15 – April 15 breeding season as long as they provided evidence that no nesting birds would be subject to 60 dBH noise levels.
BIO-9 Desert Tortoise Clearance Surveys and Fencing	Minor clarification on use of temporary desert tortoise exclusion fencing during construction on utility corridors.
BIO-10 Desert Tortoise Translocation Plan	none
BIO-11 Desert Tortoise Compliance Verification	none
BIO-12 Desert Tortoise Compensatory Mitigation	Added clarifying language that the compensatory mitigation lands would need to be at least equal in habitat quality and function as the impacted Project area habitat.
BIO-13 Raven Management Plan	none
BIO-14 Weed Management Plan	Minor clarification that allowed use of additional sources for weed control guidance.
BIO-15 Pre-Construction Nest Surveys	Clarified that this condition applied to birds other than burrowing owls, which have their own condition.
BIO-16 Avian Protection Plan	Based on consultation with USFWS on Eagle Act compliance, staff added a clarification that bird collision monitoring would also be needed for Project transmission lines.
BIO-17 Badger and Kit Fox Avoidance and Minimization Measures-	Reduced the survey areas for kit fox and badger from 250 feet to 90 feet beyond project disturbance areas. Also added a provision for trapping and relocating badgers if passive relocation failed.
BIO-18 Burrowing Owl Impact Avoidance and Minimization Measures	Added clarification on characteristics of proposed passive relocation sites; specified that artificial burrow sites be maintained for two years; added more detailed specifications for the amount of compensatory mitigation land required depending on the characteristics of those lands; added a provision that allows the mitigation to be accomplished by depositing funds into the REAT-NFWF account; and a minor revision to the criteria for burrowing owl compensation land.
BIO-19 Special-Status	Extensively reorganized and revised to provide greater

Condition of Certification	Changes from Revised Staff Assessment/ Supplemental Staff Assessment
Plant Impact Avoidance and Minimization	clarity on avoidance requirements and compensatory mitigation options. Mitigation for CNDDB Rank 2 plants revised to require complete avoidance of special-status plant occurrences on linears and compensatory mitigation for unavoidable impacts on the solar facility.
BIO-20 Sand Dune Community/Mojave Fringe-Toed Lizard Mitigation	Revised to eliminate mitigation for indirect impacts to Mojave fringe-toed lizard habitat, a reduction of 76 acres of compensatory mitigation lands, based on staff's revised conclusion that the area indirectly impacted does not support Mojave fringe-toed lizard.
BIO-21 Evaporation Pond Monitoring	none
BIO-22 Mitigation for Impacts to State Waters	none
BIO-23 Decommissioning	none
BIO-24 Revegetation of Temporarily Disturbed Areas	none
BIO-25 Monitoring Groundwater Dependent Vegetation	Specified that the groundwater dependent vegetation monitoring would only be required if the applicant used wet cooling.
BIO-26 Remedial Action for Groundwater Dependent Vegetation	none
BIO-27 Couch's Spadefoot Toad Mitigation	none
BIO-28 Golden Eagle Inventory & Monitoring	Revised based on guidance from USFWS to shrink the required survey area from 10 miles to one mile from Project boundaries, and to allow ground surveys rather than aerial surveys. Deleted the requirement that USFWS produce a letter stating that a monitoring plan was not required, and added guidance on immediate contacts with resource agencies if a nest was detected within one mile of Project construction activities.
BIO-29 In-Lieu Fee Mitigation Option	none

REVISED CONDITIONS OF CERTIFICATION

Changes that are based on workshop agreements between staff and other parties are indicated by bold, italicized red font and deleted text is shown with strikeout. Changes made subsequent to the workshops are in bold, italicized red font and are also highlighted. **BIO-19** is provided in its entirety, but for all other conditions of certification only the relevant revised excerpts are included.

IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-8 The Project owner shall undertake the following measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to biological resources:

3. Minimize Traffic Impacts. Vehicular traffic during Project construction and operation shall be confined to existing routes of travel to and from the Project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 25 miles per hour on all ***dirt*** roads ***and 45 mph on all paved roads***. Signs shall be established at appropriate locations (for example, at Arizona crossings of drainages) to remind drivers to be aware of the potential for desert tortoise and other wildlife occurring on the roadways.

6. Implement APLIC Guidelines. Transmission lines, ***fiber optic lines,*** and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) S*uggested Practices for Avian Protection on Power Lines* (APLIC 2006) and *Mitigating Bird Collisions with Power Lines* (APLIC 1994) to reduce the likelihood of large bird electrocutions and collisions.

9. Minimize Noise Impacts. A continuous low-pressure technique shall be used for steam blows, to the extent possible, in order to reduce noise levels in sensitive habitat proximate to the Genesis Project. Loud construction activities (e.g., unsilenced high pressure steam blowing and pile driving, or other) shall be avoided from February 15 to April 15 when it would result in noise levels over 60 dBA in nesting habitat. ***Loud construction activities may be permitted from February 15 to April 15 only if the Designated Biologist provides documentation (i.e., nesting bird data collected using methods described in BIO-15 and maps depicting location of the nest survey area in relation to noisy construction) to the CPM indicating that no active nests would be subject to 60 dBA noise.***

Verification*: If loud construction activities are proposed between February 15 to April 15, no more than 10 days before initiation of such construction the Project owner shall provide documentation to the CPM indicating that no active nests occur in areas that would be subject to noise 60 dBA or greater.*

DESERT TORTOISE CLEARANCE SURVEYS AND FENCING

BIO-9 The Project owner shall undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to desert tortoise….

6. Desert Tortoise Exclusion Fence Installation. Per the Applicant's Desert Tortoise Translocation Plan, in order to avoid impacts to desert tortoises, permanent desert tortoise exclusion fencing shall be installed along the permanent perimeter security fence; along the utility corridors***, temporary desert tortoise exclusion fencing*** or monitoring will be used to protect desert tortoises during construction ~~and temporarily installed along the utility corridors~~.

DESERT TORTOISE COMPENSATORY MITIGATION

BIO-12 To fully mitigate for habitat loss and potential take of desert tortoise, the Project owner shall provide compensatory mitigation at a 1:1 ratio for impacts to 1749 acres, and at a 5:1 ratio for impacts to 23 acres of critical habitat, adjusted to reflect the final Project footprint…

1. Selection Criteria for Compensation Lands. The ***quality and function of the*** compensation lands selected for acquisition ***shall be equal to or better than the quality and function of the habitat impacted and***:

   d. be connected to lands where desert tortoises can be reasonably expected to occur ~~currently occupied by desert tortoise~~ based on habitat or historic occurrences, ideally with populations that are stable, recovering, or likely to recover;

WEED MANAGEMENT PLAN

BIO-14 The Project owner shall implement a Weed Management Plan that meets the approval of the CPM.

The final plan shall only include weed control measures for target weeds with a demonstrated record of success, based on the best available information from ***sources such as***: The Nature Conservancy's The Global Invasive Species Team, ***Cooperative Extension,*** California Invasive Plant Council: http://www.cal-

ipc.org/ip/management/plant_profiles/index.php , and the California Department of Food & Agriculture Encycloweedia: http://www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia_hp.htm. The methods shall meet the following criteria:
Team, California Invasive Plant Council: http://www.cal-ipc.org/ip/management/plant_profiles/index.php , and the California Department of Food & Agriculture Encycloweedia: http://www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia_hp.htm. The methods shall meet the following criteria:

1. Manual: well-timed removal of plants or seed heads with hand tools; seed heads and plants must be disposed of in accordance with guidelines from the Riverside County Agricultural Commissioner.

2. Chemical: Herbicides known to have residual toxicity, such as pre-emergents and pellts, shall not be used in natural areas or within the engineered channels. Only the following application methods may be used: wick (wiping onto leaves); inner bark injection; cut stump; frill or hack & squirt (into cuts in the trunk); basal bark girdling; foliar spot spraying with backpack sprayers or pump sprayers at low pressure or with a shield attachment to control drift, and only on windless days, or with a squeeze bottle for small infestations ~~(see Nature Conservancy guidelines described above)~~;

PRE-CONSTRUCTION NEST SURVEYS AND AVOIDANCE MEASURES

BIO-15 Pre-construction nest surveys for ***bird species other than burrowing owls*** shall be conducted if construction activities would occur at any time during the period of February 1 through July 31. ***Burrowing owl nest surveys are addressed in BIO-18***.

Verification: ~~At least 10 days~~ ***P***rior to the start of any Project-related ground disturbance activities, the Project owner shall provide the CPM a letter-report describing the findings of the pre-construction nest surveys.

AVIAN PROTECTION PLAN

BIO-16 The Project owner shall prepare and implement an Avian Protection Plan to monitor the death and injury of birds from collisions with facility features such as ***transmission lines,*** reflective mirror-like surfaces and from heat, and bright light from concentrating sunlight.

AMERICAN BADGER AND DESERT KIT FOX IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-17 To avoid direct impacts to American badgers and desert kit fox, pre-construction surveys shall be conducted for these species concurrent with the desert tortoise surveys. Surveys shall be conducted as described below:

Biological Monitors shall perform pre-construction surveys for badger and kit fox dens in the Project area, including areas within ~~250~~ ***90*** feet of all Project facilities, utility corridors, and access roads.

After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. ***In the event that passive relocation techniques fail for badgers, the Applicant will contact CDFG to explore other relocation options, which may include trapping***. ~~BLM approval may be required prior to release of badgers on public lands.~~

BURROWING OWL IMPACT AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

BIO-18 The Project owner shall implement the following measures to avoid, minimize and offset impacts to burrowing owls:

3. ***Passive*** Relocation of Burrowing Owls. If pre-construction surveys indicate the presence of burrowing owls within the Project Disturbance Area (the Project Disturbance Area means all lands disturbed in the construction and operation of the Genesis Project), the Project owner shall prepare and implement a Burrowing Owl Relocation and Mitigation Plan, in addition to the avoidance measures described above. The final Burrowing Owl Relocation and Mitigation Plan shall be approved by the CPM, in consultation with USFWS, BLM and CDFG, and shall:

    a. Identify and describe suitable relocation sites within 1 mile of the Project Disturbance Area, and describe measures to ensure that burrow installation or improvements would not affect sensitive species habitat or existing burrowing owl colonies in the relocation area;

    b. Passive relocation sites shall be in areas of suitable habitat for burrowing owl nesting, and be

characterized by minimal human disturbance and access. Relative cover of non-native plants within the proposed relocation sites shall not exceed the relative cover of non-native plants in the adjacent habitats;

d. Prepare a monitoring and management of the relocated burrowing owl site, and provide a reporting plan. The objective of the plan shall be to manage the relocation area for the benefit of burrowing owls, with the specific goals of:

   i. maintaining the functionality of the burrows ***for two years.***

4. Acquire Compensatory Mitigation Lands for Burrowing Owls. The following measures for compensatory mitigation shall apply only if burrowing owls that are detected within the Project Disturbance Area. The Project owner shall acquire, in fee or in easement, 19.5 acres of land for each burrowing owl that is displaced by construction of the Project. Staff anticipates displacement of two owls for a total of 39 acres of compensatory mitigation land. ***This compensation acreage of 19.5 acres per single bird or pair of nesting owls assumes that there is no evidence that the compensation lands are occupied by burrowing owls. If burrowing owls are observed to occupy the compensation lands, then only 9.75 acres per single bird or pair is required, per CDFG (1995) guidelines. If the compensation lands are contiguous to currently occupied habitat, then the replacement ratio will be 13.0 acres per pair or single bird. All measures below that are based on a compensation lands total of 39 acres would be revised accordingly. Thirty-nine acres will be used as a placeholder for security.***

   The Project owner shall provide funding for the enhancement and long-term management of these compensation lands. The acquisition and management of the compensation lands may be delegated by written agreement to CDFG or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the CPM, in consultation with CDFG and USFWS prior to land acquisition or management activities. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. ***In lieu of***

acquiring lands itself, the Project owner may satisfy the requirements of this condition by depositing funds into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), as described in Section 3.i. of Condition of Certification BIO-12.

a. Criteria for Burrowing Owl Mitigation Lands. The terms and conditions of this acquisition or easement shall be as described in Paragraph 1 of **BIO-12** [Desert Tortoise Compensatory Mitigation], with the additional criteria to include: 1) the 39 acres of mitigation land must provide suitable habitat for burrowing owls, and 2) the acquisition lands must either currently support burrowing owls or be within dispersal distance from ~~an active burrowing owl nesting territory~~ ***areas occupied by burrowing owls*** (generally approximately 5 miles). The 39 acres of burrowing owl mitigation lands may be included with the desert tortoise mitigation lands ONLY if these two burrowing owl criteria are met. If the 39 acre of burrowing owl mitigation land is separate from the acquisition required for desert tortoise compensation lands, the Project owner shall fulfill the requirements described below in this condition.

SPECIAL-STATUS PLANT IMPACT AVOIDANCE, MINIMIZATION AND COMPENSATION

BIO-19 This condition contains the following four sections:

- **Section A: Special-Status Plant Impact Avoidance and Minimization Measures** contains the Best Management Practices and other measures designed to avoid accidental impacts to plants occurring ***outside of and*** within 100 feet of the Project Disturbance Area during construction, operation, and closure.
- **Section B: Conduct Late Season Botanical Surveys** describes guidelines for conducting summer-fall ***2010*** surveys to detect special-status plants that would have been missed during the spring ***2010*** surveys.
- **Section C: Avoidance Requirements for Special-Status Plants Detected in the Summer/Fall 2010 Surveys** outlines the level of avoidance required for plants detected during the summer-fall surveys, based on the species' rarity and status codes.

- **Section D: Off-Site Compensatory Mitigation for Special-Status Plants** describes performance standards for mitigation for a range of options for compensatory mitigation through acquisition, restoration/enhancement***, or a combination of acquisition and restoration/enhancement.***

"Project Disturbance Area" encompasses all areas to be temporarily and permanently disturbed by the Project, including the plant site, linear facilities, and areas disturbed by temporary access roads, fence installation, construction work lay-down and staging areas, parking, storage, or by any other activities resulting in disturbance to soil or vegetation.

The Project owner shall implement the following measures in Section A, B, C, and D to avoid, minimize, and compensate for impacts to special-status plant species:

Section A: Special-Status Plant Impact Avoidance and Minimization Measures

To protect all special-status plants[1] located outside of and within 100 feet of the permitted Project Disturbance Area from accidental and indirect impacts during construction, operation, and closure, the Project owner shall implement the following measures:

"Project Disturbance Area" encompass all areas to be temporarily and permanently disturbed by the Project or by any other activities resulting in disturbance to soil or vegetation. from accidental and indirect impacts during construction, operation, and closure, the Project owner shall implement the following measures:

1. Designated Botanist. An experienced botanist who meets the qualifications described in Section **B-2** below shall oversee compliance with all special-status plant avoidance, minimization, and compensation measures described in this condition throughout construction and closure. The Designated Botanist shall oversee and train all other Biological Monitors tasked with conducting botanical survey and monitoring work. During operation of the Project, the Designated Biologist shall be responsible for protecting special-status plant occurrences within 100 feet of the Project boundaries.
2. Special-Status Plant Impact Avoidance and Minimization Measures. The Project owner shall incorporate all measures for protecting

[1] Staff defines special-status plants as described in *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (California Natural Resources Agency, Department of Fish and Game, issued November 24, 2009).

special-status plants in close proximity to the site into the BRMIMP (**BIO-7**). These measures shall include the following elements:

a. Site Design Modifications: Incorporate site design modifications to minimize impacts to special-status plants along the Project linears: limiting the width of the work area; adjusting the location of staging areas, lay downs, spur roads and poles or towers; driving and crushing vegetation as an alternative to blading temporary roads to preserve the seed bank, and minor adjustments to the alignment of the roads and pipelines within the constraints of the ROW. Modify the engineered channel discharge points to maintain the natural surface drainage patterns between the engineered channel and the outlet of the natural washes at Ford Dry Lake. These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP.

b. Establish Environmentally Sensitive Areas (ESAs). Prior to the start of any ground- or vegetation-disturbing activities, the Designated Botanist shall establish ESAs to protect avoided special-status plants that occur within 100 feet of Project Disturbance Areas. This includes plant occurrences identified during the spring 2009-2010 surveys and the late season 2010 surveys. The locations of ESAs shall be clearly depicted on construction drawings, which shall also include all avoidance and minimization measures on the margins of the construction plans. The boundaries of the ESAs shall be placed a minimum of 20 feet from the uphill side of the occurrence and 10 feet from the downhill side. Where this is not possible due to construction constraints, other protection measures, such as silt-fencing and sediment controls, may be employed to protect the occurrences. Equipment and vehicle maintenance areas, and wash areas, shall be located 100 feet from the uphill side of any ESAs. ESAs shall be clearly delineated in the field with temporary construction fencing and signs prohibiting movement of the fencing or sediment controls under penalty of work stoppages and additional compensatory mitigation. ESAs shall also be permanently marked (with signage or other markers) to ensure that avoided plants are not inadvertently harmed during construction, operation, or closure.

c. Special-Status Plant Worker Environmental Awareness Program (WEAP). The WEAP **(BIO-6)** shall include training components specific to protection of special-status plants as outlined in this condition.

d. Herbicide and Soil Stabilizer Drift Control Measures. **S**pecial-status plant occurrences within 100 feet of the Project Disturbance Area shall be protected from herbicide and soil stabilizer drift. The Weed Control Program (**BIO-14**) shall include measures to avoid chemical drift or residual toxicity to special-status plants consistent with guidelines such as those provided by the Nature Conservancy's *The Global Invasive Species Team*[2] , the U.S. Environmental Protection Agency, and the Pesticide Action Network Database[3].

e. Erosion and Sediment Control Measures. Erosion and sediment control measures shall not inadvertently impact special-status plants (e.g., by using invasive or non-native plants in seed mixes, introducing pest plants through contaminated seed or straw, etc.). These measures shall be incorporated in the ~~Storm Water Pollution Prevention Plan (SWPPP)~~ ***Drainage, Erosion, and Sedimentation Control Plan required under SOIL&WATER-1***.

f. Avoid Special-Status Plant Occurrences. Areas for spoils, equipment, vehicles, and materials storage areas; parking; equipment and vehicle maintenance areas, and wash areas shall be placed at least 100 feet from any ESAs.

g. Monitoring and Reporting Requirements. The Designated Botanist shall conduct weekly monitoring of the ESAs that protect special-status plant occurrences during construction and decommissioning activities.

Section B: Conduct Late-Season Botanical Surveys

The Project owner shall conduct late-summer/fall botanical surveys for late-season special-status plants as described below:

1. Survey Timing. Surveys shall be timed to detect: a) summer annuals triggered to germinate by the warm, tropical summer storms (which may occur any time between June and October). Fall-blooming perennials that respond to the cooler, later season storms (typically beginning in September or October) shall only be required if blooms and seeds are necessary for identification or the species are summer-deciduous and require leaves for identification. The surveys shall not be timed to coincide with the statistical peak bloom period of the target species but shall instead be based on

[2] Hillmer, J. & D. Liedtke. 2003. Safe herbicide handling: a guide for land stewards and volunteer stewards. Ohio Chapter, The Nature Conservancy, Dublin, OH. 20 pp. Online: <http://www.invasive.org/gist/products.html.

[3] Pesticide Action Network of North America. Kegley, S.E., Hill, B.R., Orme S., Choi A.H., PAN Pesticide Database, Pesticide Action Network, North America. San Francisco, CA, 2010 <http://www.pesticideinfo.org>

plant phenology and the timing of a significant storm event (i.e., a 10mm or greater rain or multiple storm events of sufficient volume to trigger germination, as measured at or within 1 mile of the Project site). Surveys shall occur at the appropriate time to capture the characteristics necessary to identify the taxon.

2. Surveyor Qualifications and Training. Surveys shall be conducted by a qualified botanist knowledgeable in the complex biology of the local flora, and consistent with CDFG protocols (CDFG 2009). Each surveyor shall be equipped with a GPS unit and record a complete tracklog; these data shall be compiled and submitted along with the Summer-Fall Survey Botanical Report (described below). Prior to the start of surveys, all crew members shall, at a minimum, visit reference sites (where available) and/or review herbarium specimens of all BLM Sensitive plants, CNPS List 1B or 2 (Nature Serve rank S1 and S2) or proposed List 1B or 2 taxa, and any new reported or documented taxa, to obtain a search image. Because range extensions are likely to be found, the list of potentially occurring special-status plants shall include all special-status taxa known to occur within the Sonoran Desert region and the eastern portion of the Mojave in California. The list shall also include taxa with bloom seasons that begin in fall and extend into the early spring as many of these are reported to be easier to detect in fall, following the start of the fall rains.

3. Survey Coverage. The survey coverage or intensity shall be in accordance with BLM Survey Protocols (issued July 2009)[4], ***which specify that intuitive controlled surveys shall only be accomplished by botanists familiar with the habitats and species that may reasonably be expected to occur in the project area.***

4. Documenting Occurrences. If a special-status plant is detected, the full extent of the population onsite shall recorded using GPS in accordance with BLM survey protocols. Additionally, the extent of the population within one mile of Project boundaries shall be assessed at least qualitatively to facilitate an accurate estimation of the proportion of the population affected by the Project. For populations that are very dense or very large, the population size may be estimated by simple sampling techniques. When populations are very extensive or locally abundant, the surveyor must provide some basis for this assertion and roughly map the extent on a topographic map. All but the smallest populations (e.g., a population occupying less than 100 square feet) shall be recorded as area polygons; the smallest populations may be

[4] Bureau of Land Management (BLM), California State Office. *Survey Protocols Required for NEPA/ESA Compliance for BLM Special Status Plant Species*. Issued July 2009.

recorded as point features. All GPS-recorded occurrences shall include: the number of plants, phenology, observed threats (e.g., OHV or invasive exotics), and habitat or community type. The map of occurrences submitted with the final botanical report shall be prepared to ensure consistency with definition of an occurrence by CNDDB, i.e., occurrences found within 0.25 miles of another occurrence of the same taxon, and not separated by significant habitat discontinuities, shall be combined into a single 'occurrence'. The Project Owner shall also submit the raw GPS shape files and metadata, and completed CNDDB forms for each 'occurrence' (as defined by CNDDB).

5. Reporting. Raw GPS data, metadata, and CNDDB field forms shall be provided to the CPM within two weeks of the completion of each survey. If surveys are split into two or more periods (e.g., a late summer survey and a fall survey), then a summary letter shall be submitted following each survey period.

   The Final Summer-Fall Botanical Survey Report shall be prepared consistent with CDFG guidelines (CDFG 2009), and BLM 2009 guidelines and shall include ***all of*** the following components:

   a. the BLM designation, NatureServe Global and State Rank of each species or taxon found (or proposed rank, or CNPS List);

   b. the number or percent of the occurrence that will be directly affected, and indirectly affected by changes in drainage patterns or altered geomorphic processes;

   c. the habitat or plant community that supports the occurrence and the total acres of that habitat or community type that occurs in the Project Disturbance Area;

   d. an indication of whether the occurrence has any local or regional significance (e.g., if it exhibits any unusual morphology, occurs at the periphery of its range in California, represents a significant range extension or disjunct occurrence, or occurs in an atypical habitat or substrate);

   e. a completed CNDDB field form for every occurrence (occurrences of the same species within one-quarter mile or less of each other combined as one occurrence, consistent with CNDDB methodology); and

   f. two maps: one that depicts the raw GPS data (as collected in the field) on a topographic base map with Project features; and a second map that follows the CNDDB protocol for occurrence mapping.

Section C: Avoidance Requirements for Special-Status Plants Detected in the Summer/Fall 2010 Surveys

The Project owner shall apply the following avoidance standards to special-status plants that might be detected during late summer/fall season surveys. Avoidance and/or the mitigation measures described in Section D below would reduce impacts to special-status plant species to less than significant levels.

1. ***Mitigation for CNDDB Rank 1 Plants (Critically Imperiled) - 75% Avoidance Required:*** If species with a CNDDB rank of 1 are detected within the Project Disturbance Area ***or are otherwise directly impacted by discharges from or the diversion of streams around the Project, the Project owner shall implement measures to achieve complete avoidance of occurrences on the linear features*** and at least 75 percent of the local population of this species. ***The local population shall be measured by the number of individuals occurring on the Project site and within the immediate watershed of the project for wash-dependent species or species of unknown dispersal mechanism, or the within the local sand transport corridor for wind-dispersed species. Avoidance shall include protection of the ecosystem processes essential for maintenance of the protected plant occurrence. Isolated 'islands' of protected plants disconnected by the Project from natural fluvial or aeolian processes shall not be considered to be protected and shall not be credited as contributing to the 75% avoidance requirement because such isolated populations are not sustainable.*** The Project owner shall provide compensatory mitigation ***at a 3:1 mitigation ratio*** as described below in Section D for Project impacts to CNDDB Rank 1 plants (impacts cannot exceed 25 percent of the local population) that could not be avoided.

2. ***Mitigation for CNDDB Rank 2 Plants (Imperiled) – ~~75% Avoidance Required Compensatory~~ Avoidance on Linears, Off-site Compensatory Mitigation for Unavoidable Impacts***: If species with a CNDDB rank of 2 are detected within the Project Disturbance Area, the Project owner shall implement measures ~~where feasible to protect 75 percent of the local population of this species.~~ to achieve complete avoidance of all occurrences on linear Project features***.*** The Project owner shall provide compensatory mitigation ***at a 3:1 ratio*** as described below in Section D for impacts to plants ***in areas where they*** could not be avoided.

3. ***Mitigation for CNDDB Rank 3 Plants (Vulnerable) – No On-Site Avoidance Required Unless Local or Regional Significance:*** If species with a CNDDB rank of 3 are detected within the Project Disturbance Area, no onsite avoidance or compensatory mitigation shall be required unless the occurrence has local or regional significance, in which case the plant occurrence shall be treated as a CNDDB 2 ranked

plant. A plant occurrence would be considered to have local or regional significance if:

a. It occurs at the outermost periphery of its range in California;

b. It occurs in an atypical habitat, region, or elevation for the taxon that suggests that the occurrence may have genetic significance (e.g., that may increase its ability to survive future threats), or;

c. It exhibits any unusual morphology that is not clearly attributable to environmental factors that may indicate a potential new variety or sub-species.

4. ***~~Mitigation~~ Pre-Construction Notification for State- or Federal-Listed Species, or BLM Sensitive Species***. If a state or federal-listed species ***or BLM Sensitive species*** is detected, the Project owner shall immediately notify the CDFG, USFWS, BLM, and the CPM.

5. Preservation of the Germplasm of Affected Special-Status Plants. For all significant impacts to special-status plants, regardless of whether compensatory mitigation is required, mitigation shall include seed collection from the affected special-status plants on-site prior to construction to conserve the germplasm and provide a seed source for restoration efforts. The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long-term storage of the seed shall be the responsibility of the Project owner. Any efforts to propagate and reintroduce special-status plants from seeds in the wild shall be carried out under the direct supervision of specialists such as those listed above and as part of a Habitat Restoration/Enhancement Plan approved by the CPM.

Section D: Off-Site Compensatory Mitigation for Special-Status Plants

~~In addition to the avoidance measures described above~~ ***Where compensatory mitigation is required under the terms of Section C, above,*** the Project owner shall ~~offset~~ ***mitigate*** Project impacts to special-status plant occurrences ~~(those with a CNDDB rank 1 or 2)~~ with compensatory mitigation. ***Compensatory mitigation shall*** ~~consisting~~ ***consist*** of acquisition of habitat supporting the target species, restoration***/enhancement*** of populations of the target species, or a combination of ***acquisition and restoration/enhancement in accordance with the performance standards*** ~~the two~~ ~~as~~ provided within this Condition. Compensatory mitigation shall be at a 3:1 ratio, with three acres of habitat acquired or restored***/enhanced*** for every acre of ***occupied*** special-status plant habitat ~~directly or indirectly disturbed~~ ***significantly impacted*** by the ~~final project footprint~~. ***Project Disturbance Area***. The Project owner shall provide funding for the ***acquisition and/or restoration/enhancement,***

initial improvement, and long-term maintenance and management of the acquired or restored lands. ***The actual costs to comply with this condition will vary depending on the Project Disturbance Area, the actual costs of acquiring compensation habitat, the actual costs of initially improving the habitat, the actual costs of long-term management as determined by a Property Analysis Record (PAR) report, and other transactional costs related to the use of compensatory mitigation.***

I. Compensatory Mitigation by Acquisition

The requirements for the acquisition, ***initial*** protection ***and habitat improvement***, and long-term maintenance and management of special-status plant compensation lands include all of the following:

1. Selection Criteria for Acquisition Lands. The compensation lands selected for acquisition may include any of the following three categories:

   a. Occupied Habitat, No Habitat Threats: The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by ~~good to excellent~~ site integrity ***and habitat quality that are required to support the target species, and shall be of*** equal or better habitat quality than ***that of*** the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction).

   b. Occupied Habitat, Habitat Threats. Occupied compensation lands characterized by habitat threats may also be acquired as long as the population could be reasonably expected to recover with minor restoration (e.g., OHV or grazing exclusion, pest plant removal) and is accompanied by a Habitat Enhancement/Restoration Plan as described ***in Section D.II,*** below.

   c. Unoccupied but Adjacent. The Project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The Project owner shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long-term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat.

2. Review and Approval of Compensation Lands Prior to Acquisition. The Project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed

parcel(s) as compensation lands for special-status plants in relation to the criteria listed above, and must be approved by the CPM.

3. Management Plan. The Project owner or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the target special-status plant occurrences. The Management Plan shall be submitted for review and approval to the CPM.

4. Integrating Special-Status Plant Mitigation with Other Mitigation Lands. If all or any portion of the acquired Desert Tortoise, Waters of the State, Mohave fringe-toed lizard or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species' or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation.

5. Compensation Lands Acquisition Requirements. The Project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, has approved the proposed compensation lands:

    a. Preliminary Report. The Project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM. ***For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.***

    b. Title/Conveyance. The Project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or to BLM or other public agency approved by the CPM. If an approved non-profit

organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the CPM. If an entity other than CDFG holds a conservation easement over the compensation lands, the CPM may require that CDFG or another entity approved by the CPM, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The Project owner shall obtain approval of the CPM of the terms of any transfer of fee title or conservation easement to the compensation lands.

c. Initial Protection and Habitat Improvement. The Project owner shall fund activities that the CPM requires for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. ***The costs of these activities are estimated to be $990 per acre ($330 per acre, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a 3:1 ratio, but actual costs will vary depending on the measures that are required for the compensation lands*** ~~as described in BIO-12~~***).*** A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.

d. Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM before it can be used to

establish funding levels or management activities for the compensation lands.

e. Long-term Maintenance and Management Funding. The Project owner shall provide money to establish an account with non-wasting capital that will be used to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. ***Until an approved PAR or PAR-like analysis is conducted for the compensation lands, the amount of required funding is initially estimated to be $4,350 for every acre of compensation lands, using as the best available proxy the estimated cost of $1,450 per acre for Desert Tortoise compensatory mitigation, at a 3:1 ratio. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see the verification section at the end of this condition), the Project owner shall either: (i) provide initial payment equal to the amount of $4,350 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation; or (ii) provide security to the Energy Commission under subsection (g), "Mitigation Security," below, in an amount equal to $4,350 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project Disturbance Area as described above. If an initial payment is made based on the estimated per-acre costs, the Project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than $4,350 per acquired acre (at a 3:1 ratio) will be required for long-term maintenance and management, the excess paid will be returned to the Project owner. The Project owner must obtain the CPM's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands.***

The CPM will consult with CDFG before deciding whether to approve an entity to hold the Project's long-term maintenance and management funds.

The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:

i. Interest. Interest generated from the initial capital long-term maintenance and management fund shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action that is approved by the CPM and is designed to protect or improve the habitat values of the compensation lands.

ii. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.

iii. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the Project may pool those funds with similar non-wasting funds that it holds from other projects for long-term maintenance and management of compensation lands for special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the CPM.

f. Other Expenses. In addition to the costs listed above, the Project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to

providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.

g. Mitigation Security. The Project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing Project activities. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the CPM. The amount of the Security shall be $6,840 per acre ($2,280 per acre, ***using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy,*** at a 3:1 ratio) for every acre of habitat supporting the target special-status plant species which is ~~directly or indirectly~~ ***significantly impacted*** by the project. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the CPM, the Project owner shall obtain the CPM's approval of the form of the Security. The CPM may draw on the Security if the CPM determines the Project owner has failed to comply with the requirements specified in this condition. The CPM may use money from the Security solely for implementation of the requirements of this condition. The CPM's use of the Security to implement measures in this condition may not fully satisfy the Project owner's obligations under this condition, ***and the Project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient.*** The ***unused*** Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.

h. The Project owner may elect to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation

lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF). To use this option, the Project owner must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this condition) of implementing the requirement. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the Project owner, the Project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, and the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the Project owner.

The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to approval by the CPM, in consultation with CDFG, BLM and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the Energy Commission's certification of the Project.

II. Compensatory Mitigation ~~with~~ *by* Habitat Enhancement/Restoration: As an alternative or adjunct to land acquisition for compensatory mitigation the Project owner may undertake habitat enhancement or restoration for the target special-status plant species species ***if the enhancement/ restoration meets the performance standards below for rescue of an existing off-site population..*** Habitat enhancement or restoration activities must achieve protection at a 3:1 ratio, with improvements applied to three acres of habitat for every acre special-status plant habitat directly or indirectly disturbed by the ~~final Project footprint~~ ***Project Disturbance Area***. Examples of suitable enhancement projects include but are not limited to

the following: i) control unauthorized vehicle use into an occurrence (or pedestrian use if clearly damaging to the species); ii) control noxious weeds that infest or pose an immediate threat to an occurrence; iii) exclude grazing by wild burros or livestock from an occurrence; or iv) restore lost or degraded hydrologic or geomorphic functions critical to the species by restoring previously diverted flows, removing obstructions to the wind sand transport corridor above an occurrence, or increasing groundwater availability for dependent species.

If the Project owner elects to undertake a habitat enhancement project for mitigation, the project must meet the following performance standards: The proposed enhancement project shall achieve rescue of an off-site occurrence that is currently assessed, based on the NatureServe threat ranking system[5] with one of the following threat ranks: a) long-term decline >30%; b) an immediate threat that affects >30% of the population, or c) has an overall threat impact that is High to Very High. "Rescue" would be considered successful if it achieves an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").

If the Project owner elects to undertake a habitat enhancement project for mitigation, they shall submit a Habitat Enhancement/Restoration Plan to the CPM for review and approval, and shall provide sufficient funding for implementation and monitoring of the Plan. The amount of the Security shall be $6,840 per acre ($2,280 per acre, ***using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a 3:1 ratio*** ~~as described in BIO-12~~) for every acre of habitat supporting the target special-status plant species which is directly or indirectly impacted by the project. The amount of the security may be adjusted based on the actual costs of implementing the enhancement, restoration and monitoring. The implementation and monitoring of the enhancement/restoration may be undertaken by an appropriate third party such as NFWF, subject to approval by the CPM. The Habitat Enhancement/Restoration Plan shall include ***each of*** the following:

1. Goals and Objectives. Define the goals of the restoration or enhancement project and a measurable course of action developed to achieve those goals. ~~The objective of the proposed habitat~~

[5] Master, L., D. Faber-Langendoen, R. Bittman, G. A., Hammerson, B. Heidel, J. Nichols, L. Ramsay, and A. Tomaino. 2009. *NatureServe Conservation Status Assessments: Factors for Assessing Extinction Risk.* NatureServe, Arlington, VA. Online: http://www.natureserve.org/publications/ConsStatusAssess_StatusFactors.pdf , "Threats". See also: Morse, L.E., J.M. Randall, N. Benton, R. Hiebert, and S. Lu. 2004. An Invasive Species Assessment Protocol: Evaluating Non-Native Plants for Their Impact on Biodiversity. Version 1. NatureServe, Arlington, Virginia. Online: http://www.natureserve.org/publications/pubs/invasiveSpecies.pdf

~~enhancement plan shall include restoration of a target special-status plant occurrence that is currently threatened with a long-term decline~~. The proposed enhancement plan shall achieve an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").

2. Historical Conditions. Provide a description of the pre-impact or historical conditions (before the site was degraded by weeds or grazing or ORV, etc.), and the desired conditions.
3. Site Characteristics. Describe other site characteristics relevant to the restoration or enhancement project (e.g., composition of native and pest plants, topography and drainage patterns, soil types, geomorphic and hydrologic processes important to the site or species.
4. Ecological Factors. Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc.
5. Methods. Describe the restoration methods that will be used (e.g., invasive exotics control, site protection, seedling protection, propagation techniques, etc.) and the long-term maintenance required. The implementation phase of the enhancement must be completed within five years.
6. Budget. Provide a detailed budget and time-line, develop clear, measurable, objective-driven annual success criteria.
7. Monitoring. Develop clear, measurable monitoring methods that can be used to evaluate the effectiveness of the restoration and the benefit to the affected species. The Plan shall include a minimum of five years of quarterly monitoring, and then annual monitoring for the remainder of the enhancement project, and until the performance standards for rescue of a threatened occurrence are met. At a minimum the progress reports shall include: quantitative measurements of the projects progress in meeting the enhancement project success criteria, detailed description of remedial actions taken or proposed, and contact information for the responsible parties.
8. Reporting Program. The Plan shall ensure accountability with a reporting program that includes progress toward goals and success criteria. Include names of responsible parties.
9. Contingency Plan. Describe the contingency plan for failure to meet annual goals.
10. Long-term Protection. Include proof of long-term protection for the restoration site. For private lands this would include conservations easements or other deed restrictions; projects on public lands must be contained in a Desert Wildlife Management Area, Wildlife Habitat Management Area, or other land use protections that will protect the mitigation site and target species.

Verification: ***The Special-Status Plant Impact Avoidance and Minimization Measures shall be incorporated into the BRMIMP as required under Condition of Certification BIO-7***.

Raw GPS data, metadata, and CNDDB field forms shall be submitted to the CPM within two weeks of the completion of each survey. A preliminary summary of results for the late summer/fall botanical surveys shall ***also*** be submitted to the CPM and BLM's State Botanist within ~~one~~ ***two*** weeks following the completion of the surveys. If surveys are split into more than one period, then a summary letter shall be submitted following each survey period. The Final Summer-Fall Botanical Survey Report, GIS shape files and metadata shall be submitted to the BLM State Botanist and the CPM no less than 30 days prior to the start of ground-disturbing activities. The Final Report shall include a detailed accounting of the acreage of ~~direct and indirect~~ Project impacts to special-status plant occurrences.

The Project owner shall immediately provide written notification to the CPM, CDFG, USFWS, and BLM if it detects a State- or Federal-Listed Species, or BLM Sensitive Species at any time during its late summer/fall botanical surveys or at any time thereafter through the life of the Project, including conclusion of Project decommissioning.

No less than 30 days prior to the start of ground-disturbing activities the Project owner shall submit grading plans and construction drawings to the CPM which depict the location of Environmentally Sensitive Areas and the Avoidance and Minimization Measures contained in Section A of this Condition.

If compensatory mitigation is required, no less than 30 days prior to the start of ground-disturbing activities, the Project owner shall submit ***to the CPM*** Security adequate to acquire compensatory mitigation lands and/or undertake habitat enhancement or restoration activities, as described in this condition.

No fewer than 90 days prior to acquisition of compensatory mitigation lands, the Project owner shall submit a formal acquisition proposal and draft Management Plan for the proposed lands to the CPM, ***with copies to CDFG, USFWS, and BLM,*** describing the parcels intended for purchase and shall obtain approval from the CPM prior to the acquisition. ***No fewer than 90 days prior to acquisition of compensatory mitigation lands, the Project owner shall submit to the CPM and obtain CPM approval of any agreements to delegate land acquisition to an approved third party, or to manage compensation lands; such agreement shall be executed and implemented within 18 months of the Energy Commission's certification of the Project.***

The Project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM of such completion no later than 18 months after the start of Project ground-disturbing activities. If NFWF or another approved third party is being

used for the acquisition, the Project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline.

If habitat enhancement is proposed, ***no later than six months following the start of ground-disturbing activities, the Project owner shall obtain CPM approval*** of the final Habitat Enhancement/Restoration Plan, prepared in accordance with Section D ~~shall be submitted to the CPM or a third party approved by the CPM,~~ and submit to the CPM or a third party approved by the CPM ***Security adequate for long-term implementation and monitoring of the Habitat Enhancement/Restoration Plan***.

Enhancement/restoration activities shall be initiated no later than 12 months from the start of construction. The implementation phase of the enhancement project shall be completed within five years of initiation. Until completion of the five-year implementation portion of the enhancement action, a report shall be prepared and submitted as part of the Annual Compliance Report. This report shall provide, at a minimum: a summary of activities for the preceding year and a summary of activities for the following year; quantitative measurements of the Project's progress in meeting the enhancement project success criteria; detailed description of remedial actions taken or proposed; and contact information for the responsible parties.

Within 18 months of ground-disturbing activities, the Project owner shall transfer to the CPM or an approved third party the difference between the Security paid and the actual costs of (1) acquiring compensatory mitigation lands, completing initial protection and habitat improvement , and funding the long-term maintenance and management of compensatory mitigation lands; and/or (2) implementing and providing for the long-term protection and monitoring of habitat enhancement or restoration activities.

Implementation of the special-status plant impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of Project construction, the Project owner shall provide to the CPM, for review and approval, in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.

The Project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all avoided special-status plants to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, completed CNDDB field forms for each avoided occurrence on-site and within 100 feet of the Project boundary off-site, and description of the remedial action, if warranted and planned for the upcoming year. The completed forms shall include an

inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends.

SAND DUNES/MOJAVE FRINGE-TOED LIZARD MITIGATION

NOTE: In the Supplemental Revised Staff Assessment (RSA) published on July 2, 2010 staff revised the mitigation obligation in **BIO-20** to reflect increased direct impacts to sand dune habitat as described in the Applicant's June 18, 2010 submittal (*Tetra Tech/T. Bernhardt [tn:57263] Supplemental Information for the GSEP, June 18 2010. 42 p*). The document discussed the impacts of a newly-proposed six-pole transmission line extension to tie into the proposed Colorado River Substation and other minor changes to the Project Table 2 summarizes the basis for the sand dune mitigation requirement described in the Supplemental RSA.

Table 2. Direct and Indirect Impacts to Mojave Fringe-toed Lizard Habitat and Recommended Mitigation (from the Supplemental RSA)

Resource	Acres Impacted	Ratio	Recommended Mitigation Acreage
Stabilized/Partially Stabilized Sand Dunes – Direct Impacts			
Direct Impacts	7.5	3:1	22
Playa and Sand Drifts Over Playa			
Direct Impacts	38	3:1	114
Indirect Impacts to MFTL Habitat	151	0.5:1	76
Total Mojave Fringe-toed Lizard Mitigation			212

The changes below are revised from the text for **BIO-20** that was in the Supplemental RSA, and reflect subtraction of the 76 acres of mitigation for indirect impacts to Mojave fringe-toed lizard habitat.

BIO-20 The Project owner shall mitigate for direct and indirect impacts to stabilized and partially stabilized sand dunes and other Mojave fringe-toed lizard habitat by acquisition of ***136*** ~~212~~ acres of Mojave fringe-toed lizard habitat. The Project owner shall provide funding for the acquisition, initial habitat improvements and long-term management of the compensation lands. The ~~212~~ ***136*** -acre acquisition requirement, and associated funding requirements based on that acreage….

The requirements for acquisition, initial improvement and long-term management of compensation lands include all of the following:

1. Criteria for Compensation Lands: The compensation lands selected for acquisition shall:

a. Provide suitable habitat for Mojave fringe-toed lizards ***that is equal to or better than that found in the Project disturbance area***, and may include stabilized and partially stabilized desert dunes or sand drifts over playas or Sonoran creosote bush scrub;

b. Be within the Chuckwalla Valley with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards and preserve lands with suitable habitat;

c. Be connected to lands that are either currently occupied or have high potential to be occupied by Mojave fringe-toed lizard based on patch size and habitat quality;

d. Be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;

e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;

f. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration;

g. Not contain hazardous wastes;

h. Not be subject to property constraints (i.e. mineral leases, cultural resources); and

i. Be on land for which long-term management is feasible.

GROUNDWATER DEPENDENT VEGETATION MONITORING

BIO-25 ***If the Project uses wet cooling, t***~~T~~he Applicant shall prepare and implement a Draft Groundwater-Dependent Vegetation Monitoring Plan (Vegetation Monitoring Plan).

GOLDEN EAGLE INVENTORY AND MONITORING

BIO-28 The Project owner shall implement the following measures to avoid or minimize Project-related construction impacts to golden eagles.

1. Annual Inventory During Construction. For each calendar year during which construction will occur an inventory shall be conducted to determine if golden eagle territories occur within ~~10~~ ***one*** miles~~s~~ of the Project boundaries. Survey methods for the inventory shall be as described in the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) or more current guidance from the USFWS.

3. Determination of Unoccupied Territory Status: A nesting territory or inventoried habitat shall be considered unoccupied by golden eagles ONLY after completing at least 2 full ~~aerial~~ surveys in a single breeding season.

4. Monitoring and Adaptive Management Plan: If an occupied nest is detected within ***one*** ~~10~~ miles~~s~~ of the Project boundaries, the Project owner shall prepare and implement a Golden Eagle Monitoring and Management Plan for the duration of construction to ensure that Project construction activities do not result in injury or disturbance to golden eagles.

Verification: No fewer than 30 days from completion of the golden eagle inventory the project owner shall submit a report to the CPM, CDFG, and USFWS documenting the results of the inventory.

If an occupied nest is detected within ~~10~~ one miles~~s~~ of the Project boundary during the inventory the Project shall contact staff at the USFWS Carlsbad Office and CDFG within one working day of detection of the nest for interim guidance on monitoring and nest protection. ~~at least 30 days prior to the start of any pre-construction site mobilization t~~***T***he project owner shall provide the CPM, ***CDFG***, and USFWS with the final version of the Golden Eagle Monitoring and Management Plan within 30 days after detection of the nest. This final Plan shall have been reviewed and approved by the CPM in consultation with USFWS and ***CDFG***. ~~If no occupied nests are detected during the inventory and a Plan is not warranted, a letter from USFWS documenting this determination shall be submitted to the CPM at least 10 days prior to the start of any pre-construction site mobilization.~~